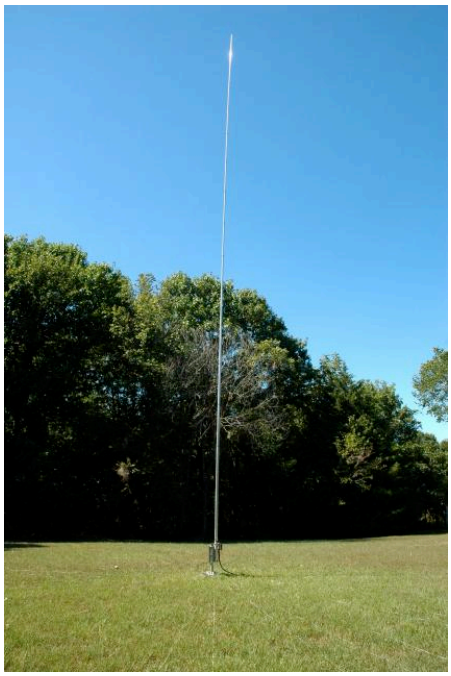
ZEROFIVE-ANTENNAS

43 FOOT 10 THROUGH 160 METER MULTIBAND VERTICAL

INSTALLATION NOTES



Thanks for your purchase of this antenna. We hope that you'll look over the instructions and tips provided before you install the antenna. Taking advantage of this information will help to make your installation easier and much more reliable.

The 43 foot multiband vertical antenna was designed to be a useable single antenna solution for most hams**.** This antenna fills the niche for a multiband vertical that has HF band coverage without lossy traps and tricky adjustments when you install it. The performance varies from band to band when compared to a single band quarter wave vertical for each band it covers, it provides useable transmit coverage from 80 to 10 meters for most types of ham radio use. It also provides good receive coverage on all the bands from 160 to 10 meters including the shortwave broadcast bands and the AM broadcast band here in the United States. It provides the first time top band user with a way to try 160 meters before going to the expense of putting up an antenna dedicated for the band. Good 160 meter antennas aren't cheap!

MOUNTING AND FOLDOVER

The foldover mount that is included with your vertical is designed to mount to a 2 inch OD water pipe, which will have a 1 1/2 inch ID. A 5 foot length will do fine. You can buy this at Home Depot, Lowe's or almost any good hardware store. When driving the pipe in the ground use a block of wood to protect the end of the pipe so it is not deformed. Put 3 1/2 feet in the ground and leave 18 inches above to mount your vertical to.

When cementing the pipe in the ground the hole should be at least 10 inches in diameter and 3 feet deep. Most home improvement stores carry concrete footer forms that can be used to help center the pipe in the hole and make a neater installation. Use a 5 foot length of pipe. Six inches of the pipe will go in the soil in the bottom of the hole. A long bolt through the pipe or a metal piece welded to the pipe and imbedded in the poured concrete will help the mounting pipe stay in place. **In areas where the ground heaves from freezing, make sure your hole is deep enough to reach below the freezing level.** Check with your local home improvement center. They may know what your local building regulations recommend in your area.

When folding the vertical down remove the top gold grade 8 bolt with 3/4 inch box wrenches and slowly walk the vertical down.**The foldover mount has 180 degree rotation, so it will be optimum for most installations.** This normally only takes one person but in cases where the antenna is being lowered in high winds you should have a second person to safely lower it.

When raising this antenna, make slow movements in walking it up into place. Fast or jerky movements could over-stress the tubing and cause one or more sections to fail. Take your time getting the antenna into place and you shouldn't have any problems raising it.

The foldover allows a full 180-degree range. This is perfect when mounting on uneven ground or on top of a hill. Make sure when you install the antenna that it stays well away from any power lines or other wiring when raised or lowered and other obstructions in the lowered position. The antenna should be on the ground, NOT propped up on a building or other obstruction.

Assembly of the vertical

NOTE: Please use caution in tightening the clamps! Over tightening can break the clamps. DO NOT USE POWER TOOLS to tighten the clamps. Hand tools ONLY please! Replacement clamps are available at most hardware and automotive stores if you happen to damage one during installation. Please use stainless steel clamps if you need to replace a damaged clamp. They provide the longest life when exposed to outside weather conditions.

Your multiband vertical comes partially preassembled for shipping from the factory. When putting together the vertical section, Penetrox or OX-guard should be applied to each point where the tubing sections join. The sections should be slid into the next size up to the black mark. This makes a good corrosion free electrical connection that will last for years. DO NOT attempt to lengthen the antenna by reducing the overlap between the sections. You'll weaken the antenna considerably if you try it.

Matching transformer wiring – Two wires are supplied with ring terminals on each end. The positive side of the matching transformer connects to the quarter inch bolt directly above the green insulator. Remove the nut on the end of the bolt and slide the ring terminal over the bolt before re-tightening the nut. This is much easier than completely removing the bolt. Make sure this wire does not contact any other metal other than the two connection points. The negative side of the matching transformer connects to the quarter inch bolt just below the green insulator.

Also be sure to keep weeds and tree branches from coming in contact with the vertical portion of the antenna. High voltages are present on the antenna during operation, even at the 100-watt power level.

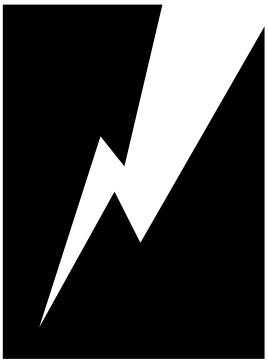
If you use a string type grass trimmer to remove weeds around the base of the antenna be careful that you don't accidentally nick the jacket of the coaxial cable. Damage to the jacket of the coax will let water into the line and reduce the performance of the coax cable leading to the eventual failure of the line. A length of old garden hose can be used at installation time as a shield for the coaxial cable to prevent string trimmer damage.

Now the legal stuff…

We all know that this sort of stuff is common sense but our lawyer is totally without humor and made us put this in anyway.

This antenna should NOT be installed where it may come in contact with power or telecommunications lines either during installation or potential failure. Make sure that it is installed well away from other objects such as buildings with metal siding, telephone and power poles and power lines. Also, take into account where it may fall if it is taken down by high winds or icing.

Please remember that, under most operating conditions, this antenna may have harmful voltages on the vertical mast even under low power conditions. We suggest the protection of a fence, wood or other non-conducting material of course, around this antenna to prevent contact by people or pets. As a temporary measure, plastic snow fencing and some wooden doweling makes a useable fence to keep people and pets away from the antenna. The fence should be located at least 4 feet away from the antenna.



DO NOT ATTEMPT TO LOWER THE ANTENNA IF A THUNDERSTORM IS ALREADY UNDER WAY. If you can hear the thunder then the lightning is close enough to strike. It isn't a good idea to grab onto a 43 foot lightning rod!

Radials may be a hazard when using a lawn mower. Burying the radials is suggested to prevent damage to either the radials or lawn mowers.bPlease check for any regulations that may apply in your area. A visit to your local home improvement center may provide some clues or information sheets about the regulations or at least who to contact in your area to check.